

K130514

## 5 510(k) Summary

1. **Applicant's Name and Address:** audifon USA Inc.  
403 Chairman Ct., Suite 1  
Debary, Florida 32713  
PO BOX 531700  
USA
2. **Contact Person:** Jane E Perrone NOV 21 2013  
Phone: 386-6688812
3. **Trade or Proprietary Name:** audifon arriva CIC TRT  
audifon arriva IS TRT  
audifon arriva IS+ TRT  
audifon arriva M TRT  
audifon arriva S TRT  
audifon arriva S+ TRT  
audifon arriva X TRT  
audifon elia CIC TRT  
audifon elia IS TRT  
audifon elia IS+ TRT  
audifon elia M TRT  
audifon elia S TRT  
audifon prado CIC TRT  
audifon prado IS TRT  
audifon prado IS+ TRT  
audifon prado M TRT  
audifon prado S TRT  
audifon vico CIC TRT  
audifon vico IS TRT  
audifon vico IS+ TRT  
audifon vico M TRT  
audifon vico S TRT
4. **Device Common Name / Classification Name:** Hearing Aid, Tinnitus Masker (Regulation Number: 21 CFR 874.3400)
5. **Product Code:** ESD, KLW
6. **Classification of Device:** Class I for hearing aid  
Class II for tinnitus masker
7. **Establishment Registration Number:** 3005384855

**8. Address of Manufacturing Site:** audifon GmbH & Co. KG  
Werner-von-Siemens.Str. 2  
D-99625 Kölleda  
Germany

**9. Market Device with  
Substantial Equivalence:** K091552  
audifon switch 8 TRT

**10. Date of Preparation** November 07, 2013

## **Indications for Use**

The combined devices are intended for the adult population suffering from a chronic persistent ringing in the ears (Tinnitus), who also need or desire amplification. The amplification suits the needs of a slight to a profound hearing loss (see table below). The products may also be used for masking Tinnitus as part of a Tinnitus Retraining Therapy (TRT) protocol and should be utilized only in consultation with a licensed hearing healthcare professional, who is trained in subsequent rehabilitation therapy, or a qualified audiologist.

<b>Device Name</b>	<b>Hearing loss level</b>
arriva CIC TRT	slight to moderate severe
arriva IS TRT	slight to moderate severe
arriva IS+ TRT	slight to moderate severe
arriva M TRT	slight to severe
arriva S TRT	slight to severe
arriva S+ TRT	slight to severe
arriva X TRT	mild to profound
elia CIC TRT	slight to moderate severe
elia IS TRT	slight to moderate severe
elia IS+ TRT	slight to severe
elia M TRT	mild to profound
elia S TRT	slight to severe
prado CIC TRT	slight to moderate severe
prado IS TRT	slight to moderate severe
prado IS+ TRT	slight to moderate severe
prado M TRT	mild to profound
prado S TRT	slight to severe
vico CIC TRT	slight to moderate severe
vico IS TRT	slight to moderate severe
vico IS+ TRT	slight to severe
vico M TRT	mild to profound
vico S TRT	slight to severe

## **Description of Device**

The above mentioned TRT devices are digital noise generators and hearing aids which were developed to be used in a tinnitus retraining therapy. These products have up to four different programs, which can be programmed in shape and level to fit the individual users needs. The programming can be done with a standard HI-PRO and the audifon audifit software. Within the software the amplification of the combi-masker can be fitted to the individual needs. The noise can be adjusted in shape with low- and high-cut filters and in the output level. It is housed in a standard In-the-ear instrument housing (CIC, IS, IS+ housing) or in a standard behind-the-ear instrument housing (S, S+, M and X housing).

### **Comparison Information to Predicate Device**

The mentioned devices are substantially equivalent to the audifon switch 8 TRT (K091552). The mentioned devices and the audifon switch 8 TRT are fully digital noiser, with programmable noises. Within the program the level and the shape of the noise can be adjusted. Also the mentioned devices and the switch 8 TRT provide an additional amplification and can be programmed with the fitting software and a standard HI-PRO programming box.

The non-clinical performance data which were measured according to official standards (ANSI S3.22-2009) verify that the devices have a similar effectiveness as the predicate device. For TRT therapy only low sound levels below 80 dB SPL are needed. So for an effective TRT system levels above this are not needed. Also according the OSHA (29CFR 1910.95) output levels should not exceed 85 dBA. Therefore a warning in the software will occur that the higher levels should not be used or only in case of a hearing loss. So the lower maximum output has no influence on the effectiveness of the devices.

The frequency range provides an equivalent white noise with the same sound quality.

In conclusion the non-clinical tests demonstrate that the submitted devices are as safe, as effective, and perform as well as the predicate device.

The submission for tinnitus masker relies on a special control that is defined in section 874.3400. The special controls are identical applied as with the predicate device and supports the substantial equivalence:

The following tables compare the submitted devices and the audifon switch 8 TRT.

**audifon arriva CIC TRT**  
**audifon arriva IS TRT**  
**audifon arriva IS+ TRT**  
**audifon arriva M TRT**  
**audifon arriva S TRT**  
**audifon arriva S+ TRT**  
**audifon arriva X TRT**

**switch 8 TRT**

Indications For Use	<p>The combined devices are intended for the adult population suffering from a chronic persistent ringing in the ears (Tinnitus), who also need or desire amplification. The amplification suits the needs of a slight to a profound hearing loss. The products may also be used for masking Tinnitus as part of a Tinnitus Retraining Therapy (TRT) protocol and should be utilized only in consultation with a licensed hearing healthcare professional, who is trained in subsequent rehabilitation therapy, or a qualified audiologist.</p>	<p>The device is addressed to the adult population with a chronic persistent ringing in the ears (Tinnitus), who also need or desire amplification. The amplification suits the needs of a mild to a moderate hearing loss. It may be used for masking tinnitus as part of tinnitus management program that is prescribed by a licensed hearing healthcare professional, who is trained in subsequent rehabilitation therapy, or a qualified audiologist. Therefore it generates a broadband noise with sufficient bandwidth and intensity and is applied on the ear.</p>
Operation / Mechanism	<p>Uses broadband noise; Manages tinnitus through masking and distraction</p> <p>Circuit type: Digital Programmable: Yes Available noises: Four Volume control: Yes (M, S, S+ X) Optional (CIC, IS, IS+)</p> <p>white-noise is adjustable noise level is programmable adjustable Low Battery Indicator programmable Program Switch Tones</p>	<p>Uses broadband noise; Manages tinnitus through masking and distraction</p> <p>Circuit type: Digital Programmable: Yes Available noises: Four Volume control: No</p> <p>white-noise is adjustable noise level is programmable adjustable Low Battery Indicator programmable Program Switch Tones</p>
Where Used	May be used anywhere	May be used anywhere
Physical Description	<p>Standard In-the-ear instrument housing (CIC, IS and IS+ housing)</p> <p>Standard behind-the-ear instrument housing (M, S, S+ and X housing)</p>	Standard receiver-in-the-ear instrument housing
Maximum Output Characteristics	<p>RMS Output Characteristics:</p> <p>White noise: 70 - 74 dB SPL frequency range: 200 - 8000 Hz</p>	<p>RMS Output Characteristics:</p> <p>White noise: 100 dB SPL frequency range: 200 - 6000 Hz</p>
Power Source	<p>standard 10 zinc air 1,4V hearing aid battery (CIC housing)</p> <p>standard 312 zinc air 1,4V hearing aid battery (IS and S housing)</p> <p>standard 13 zinc air 1,4V hearing aid battery (IS+, M and S+ housing)</p> <p>standard 675 zinc air 1,4V hearing aid battery (X housing)</p>	Uses standard 312 zinc air 1.4V hearing aid battery
Quality Assurance Standard	ANSI S3.22-2009 to ensure proper functioning of HA	ANSI S3.22-2009 to ensure proper functioning of HA

**audifon elia CIC TRT**  
**audifon elia IS TRT**  
**audifon elia IS+ TRT**  
**audifon elia M TRT**  
**audifon elia S TRT**

**switch 8 TRT**

Indications For Use	<p>The combined devices are intended for the adult population suffering from a chronic persistent ringing in the ears (Tinnitus), who also need or desire amplification. The amplification suits the needs of a slight to a profound hearing loss. The products may also be used for masking Tinnitus as part of a Tinnitus Retraining Therapy (TRT) protocol and should be utilized only in consultation with a licensed hearing healthcare professional, who is trained in subsequent rehabilitation therapy, or a qualified audiologist.</p>	<p>The device is addressed to the adult population with a chronic persistent ringing in the ears (Tinnitus), who also need or desire amplification. The amplification suits the needs of a mild to a moderate hearing loss. It may be used for masking tinnitus as part of tinnitus management program that is prescribed by a licensed hearing healthcare professional, who is trained in subsequent rehabilitation therapy, or a qualified audiologist. Therefore it generates a broadband noise with sufficient bandwidth and intensity and is applied on the ear.</p>
Operation / Mechanism	<p>Uses broadband noise; Manages tinnitus through masking and distraction</p> <p>Circuit type: Digital Programmable: Yes Available noises: Four Volume control: Yes (M, S) Optional (IS, IS+) No (CIC)</p> <p>white-noise is adjustable noise level is programmable adjustable Low Battery Indicator programmable Program Switch Tones</p>	<p>Uses broadband noise; Manages tinnitus through masking and distraction</p> <p>Circuit type: Digital Programmable: Yes Available noises: Four Volume control: No</p> <p>white-noise is adjustable noise level is programmable adjustable Low Battery Indicator programmable Program Switch Tones</p>
Where Used	May be used anywhere	May be used anywhere
Physical Description	<p>Standard In-the-ear instrument housing (CIC, IS and IS+ housing)</p> <p>Standard behind-the-ear instrument housing (M, and S housing)</p>	Standard receiver-in-the-ear instrument housing
Maximum Output Characteristics	<p>RMS Output Characteristics:</p> <p>White noise: 71 - 72 dB SPL frequency range: 200 - 8000 Hz</p>	<p>RMS Output Characteristics:</p> <p>White noise: 100 dB SPL frequency range: 200 - 6000 Hz</p>
Power Source	<p>standard 10 zinc air 1,4V hearing aid battery (CIC housing)</p> <p>standard 312 zinc air 1,4V hearing aid battery (IS and S housing)</p> <p>standard 13 zinc air 1,4V hearing aid battery (IS+, and M housing)</p>	Uses standard 312 zinc air 1.4V hearing aid battery
Quality Assurance Standard	ANSI S3.22-2009 to ensure proper functioning of HA	ANSI S3.22-2009 to ensure proper functioning of HA

**audifon prado CIC TRT**  
**audifon prado IS TRT**  
**audifon prado IS+ TRT**  
**audifon prado M TRT**  
**audifon prado S TRT**

**switch 8 TRT**

Indications For Use	<p>The combined devices are intended for the adult population suffering from a chronic persistent ringing in the ears (Tinnitus), who also need or desire amplification. The amplification suits the needs of a slight to a profound hearing loss. The products may also be used for masking Tinnitus as part of a Tinnitus Retraining Therapy (TRT) protocol and should be utilized only in consultation with a licensed hearing healthcare professional, who is trained in subsequent rehabilitation therapy, or a qualified audiologist.</p>	<p>The device is addressed to the adult population with a chronic persistent ringing in the ears (Tinnitus), who also need or desire amplification. The amplification suits the needs of a mild to a moderate hearing loss. It may be used for masking tinnitus as part of tinnitus management program that is prescribed by a licensed hearing healthcare professional, who is trained in subsequent rehabilitation therapy, or a qualified audiologist. Therefore it generates a broadband noise with sufficient bandwidth and intensity and is applied on the ear.</p>
Operation / Mechanism	<p>Uses broadband noise; Manages tinnitus through masking and distraction</p> <p>Circuit type: Digital Programmable: Yes Available noises: Four Volume control: Yes (M, S) Optional (IS, IS+) No (CIC)</p> <p>white-noise is adjustable noise level is programmable adjustable Low Battery Indicator programmable Program Switch Tones</p>	<p>Uses broadband noise; Manages tinnitus through masking and distraction</p> <p>Circuit type: Digital Programmable: Yes Available noises: Four Volume control: No</p> <p>white-noise is adjustable noise level is programmable adjustable Low Battery Indicator programmable Program Switch Tones</p>
Where Used	May be used anywhere	May be used anywhere
Physical Description	<p>Standard In-the-ear instrument housing (CIC, IS and IS+ housing)</p> <p>Standard behind-the-ear instrument housing (M, and S housing)</p>	Standard receiver-in-the-ear instrument housing
Maximum Output Characteristics	<p>RMS Output Characteristics:</p> <p>White noise: 71 - 72 dB SPL frequency range: 200 - 8000 Hz</p>	<p>RMS Output Characteristics:</p> <p>White noise: 100 dB SPL frequency range: 200 - 6000 Hz</p>
Power Source	<p>standard 10 zinc air 1,4V hearing aid battery (CIC housing)</p> <p>standard 312 zinc air 1,4V hearing aid battery (IS and S housing)</p> <p>standard 13 zinc air 1,4V hearing aid battery (IS+, and M housing)</p>	Uses standard 312 zinc air 1.4V hearing aid battery
Quality Assurance Standard	ANSI S3.22-2009 to ensure proper functioning of HA	ANSI S3.22-2009 to ensure proper functioning of HA

		<b>audifon vico CIC TRT</b> <b>audifon vico IS TRT</b> <b>audifon vico IS+ TRT</b> <b>audifon vico M TRT</b> <b>audifon vico S TRT</b>	<b>switch 8 TRT</b>
<b>Indications For Use</b>	The combined devices are intended for the adult population suffering from a chronic persistent ringing in the ears (Tinnitus), who also need or desire amplification. The amplification suits the needs of a slight to a profound hearing loss. The products may also be used for masking Tinnitus as part of a Tinnitus Retraining Therapy (TRT) protocol and should be utilized only in consultation with a licensed hearing healthcare professional, who is trained in subsequent rehabilitation therapy, or a qualified audiologist.	The device is addressed to the adult population with a chronic persistent ringing in the ears (Tinnitus), who also need or desire amplification. The amplification suits the needs of a mild to a moderate hearing loss. It may be used for masking tinnitus as part of tinnitus management program that is prescribed by a licensed hearing healthcare professional, who is trained in subsequent rehabilitation therapy, or a qualified audiologist. Therefore it generates a broadband noise with sufficient bandwidth and intensity and is applied on the ear.	
<b>Operation / Mechanism</b>	Uses broadband noise; Manages tinnitus through masking and distraction  Circuit type: Digital Programmable: Yes Available noises: Four Volume control: Yes (M, S) Optional (CIC, IS, IS+)  white-noise is adjustable noise level is programmable adjustable Low Battery Indicator programmable Program Switch Tones	Uses broadband noise; Manages tinnitus through masking and distraction  Circuit type: Digital Programmable: Yes Available noises: Four Volume control: No  white-noise is adjustable noise level is programmable adjustable Low Battery Indicator programmable Program Switch Tones	
<b>Where Used</b>	May be used anywhere	May be used anywhere	
<b>Physical Description</b>	Standard In-the-ear instrument housing (CIC, IS and IS+ housing)  Standard behind-the-ear instrument housing (M and S housing)	Standard receiver-in-the-ear instrument housing	
<b>Maximum Output Characteristics</b>	RMS Output Characteristics:  White noise: 107 - 113 dB SPL frequency range: 200 - 8000 Hz	RMS Output Characteristics:  White noise: 100 dB SPL frequency range: 200 - 6000 Hz	
<b>Power Source</b>	standard 10 zinc air 1,4V hearing aid battery (CIC housing)  standard 312 zinc air 1,4V hearing aid battery (IS and S housing)  standard 13 zinc air 1,4V hearing aid battery (IS+, and M housing)	Uses standard 312 zinc air 1.4V hearing aid battery	
<b>Quality Assurance Standard</b>	ANSI S3.22-2009 to ensure proper functioning of HA	ANSI S3.22-2009 to ensure proper functioning of HA	

## Conclusion

- The devices have similar acoustic characteristics as the predicate device.
- The devices are similar in style (ITE or BTE) as the predicate device.
- The devices are similar in material as the predicate device.
- The devices are similar in intended use as the predicate device
- The devices have the same targeted population as the predicate device



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Center - WO66-G609  
Silver Spring, MD 20993-002

November 21, 2013

Audifon USA, Inc.  
c/o Ms. Jane E. Perrone  
Vice President of U.S. Operations  
403 Chairman Ct. Suite 1  
Debary, FL 32713

Re: K130514

Trade/Device Name: TRT products arriva, vico, prado and elia  
Regulation Number: 21 CFR 874.3400  
Regulation Name: Hearing Aid, Tinnitus Masker  
Regulatory Class: Class II (for tinnitus masker)  
Product Code: KLW, ESD  
Dated: August 19, 2013  
Received: August 23, 2013

Dear Ms. Perrone:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA).

You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

**Eric A. Mann -S**

for Malvina B. Eydelman, M.D.  
Director  
Division of Ophthalmic and Ear, Nose  
and Throat Devices  
Office of Device Evaluation  
Center for Devices and Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known): K130514

Device Name:	audifon arriva CIC TRT audifon arriva IS TRT audifon arriva IS+ TRT audifon arriva M TRT audifon arriva S TRT audifon arriva S+ TRT audifon arriva X TRT audifon elia CIC TRT audifon elia IS TRT audifon elia IS+ TRT audifon elia M TRT audifon elia S TRT audifon prado CIC TRT audifon prado IS TRT audifon prado IS+ TRT audifon prado M TRT audifon prado S TRT audifon vico CIC TRT audifon vico IS TRT audifon vico IS+ TRT audifon vico M TRT audifon vico S TRT	(hearing aid with TRT noise generator) (hearing aid with TRT noise generator)
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### Indications For Use:

The combined devices are intended for the adult population suffering from a chronic persistent ringing in the ears (Tinnitus), who also need or desire amplification. The amplification suits the needs of a slight to a profound hearing loss (see table below). The products may also be used for masking Tinnitus as part of a Tinnitus Retraining Therapy (TRT) protocol and should be utilized only in consultation with a licensed hearing healthcare professional, who is trained in subsequent rehabilitation therapy, or a qualified audiologist.

Device Name	Hearing loss level
arriva CIC TRT	slight to moderate severe
arriva IS TRT	slight to moderate severe
arriva IS+ TRT	slight to moderate severe
arriva M TRT	slight to severe
arriva S TRT	slight to severe
arriva S+ TRT	slight to severe
arriva X TRT	mild to profound
elia CIC TRT	slight to moderate severe
elia IS TRT	slight to moderate severe
elia IS+ TRT	slight to severe
elia M TRT	mild to profound
elia S TRT	slight to severe
prado CIC TRT	slight to moderate severe
prado IS TRT	slight to moderate severe
prado IS+ TRT	slight to moderate severe
prado M TRT	mild to profound
prado S TRT	slight to severe
vico CIC TRT	slight to moderate severe
vico IS TRT	slight to moderate severe
vico IS+ TRT	slight to severe
vico M TRT	mild to profound
vico S TRT	slight to severe

Prescription Use X  
 (Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use \_\_\_\_\_  
 (21 CFR 807 Subpart C)

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Concurrence of Center for Devices and Radiological Health (CDRH)

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Page 2 of 2